



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/691,547      | 10/24/2003  | Yoshiyuki Sumitomo   | 103213-00060        | 7494             |

7590 07/05/2005

ARENT FOX KINTNER PLOTKIN & KAHN, PLLC  
Suite 600  
1050 Connecticut Avenue, N.W.  
Washington, DC 20036-5339

EXAMINER

BRINSON, PATRICK F

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

3754

DATE MAILED: 07/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/691,547

Applicant(s)

SUMITOMO, YOSHIYUKI

Examiner

Patrick F. Brinson

Art Unit

3754

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 02 May 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3,4,6,7 and 10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,4,6,7 and 10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 4 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by US 6,044,844 to **Kwok et al.**

The patent to **Kwok et al.** discloses a hose (18), figs. 4-6, of which a cross-sectional shape is seen in a plane perpendicular to an axial direction is rectangular and having linear projections (42, 44, 46) formed on the inner wall of the hose body along the axial direction. Though not drawn to scale, fig. 5 best discloses a gap between a top of the linear projection and a part of the inner wall opposite the linear projection being approximately 25% to 30% of the distance from the part of the inner wall on which the linear projection is formed to the part opposite the projection, as recited in claims 1 and 6. A cross-sectional shape of each linear projection as seen in a plane perpendicular to an axial direction is trapezoidal, as recited in claim 4.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Kwok et al.** in view of U.S. 4,867,485 to **Seckel**.

The patent to **Kwok et al.** does not disclose the linear projections having a flat surface at the top. The patent to **Seckel** discloses a kink impeding hose including projections (20) formed in a trapezoidal cross-section and including flat surfaces (24). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the projections of **Kwok et al.** to include flat surfaces on top, as suggested by **Seckel**, in order to provide an alternate design, wherein the function of the projections in either reference is to prevent the hose from occluding, thus preventing fluid from traveling through the tube.

3. Claims 7 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Kwok et al.** in view of U.S. 4,257,422 to **Duncan**.

The patent to **Kwok et al.** does not disclose the projections formed on opposite walls pointing towards each other. The patent to **Duncan** discloses a crush resistant fluid delivery hose having a substantially rectangular cross-section including projections (13 and 14) that are arranged such that their tops point toward each other. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the projections of **Kwok et al.** such that the tops of opposing projections face each other, as suggested by **Duncan**, wherein it is known in the art to provide opposing projections on opposite sides of the tube wall such that they meet when external force is applied in order to prevent blockage of the flow through channel. In regard to the limitations of claim 10, **Kwok et al** discloses, as discussed in preceding paragraph # 2, the projections being spaced 25% to 30% from the wall opposite to the projection. It also would be obvious that in combining the teaching of **Kwok et al.** with **Duncan**, that the projections would be spaced from each other to form a gap in the range 25% to 30% of the distance from the parts of the wall from which the projections are formed in order to reduce the deformation of the hose when subjected to external forces.

#### ***Response to Amendment***

4. Applicant argues that the **Kwok** reference does not disclose a specific dimensional relationship between the inwardly directed ribs and the inner wall, and

therefore fails to disclose the gap between a top of the projection and the wall opposite the projection in the range of 25% to 30%. Applicant further states that a claim is only anticipated if each and every element set forth in the claim is found, either expressly or inherently described in the reference. It should be noted that the figures are a part of the reference's disclosure and though not drawn to scale, fig. 5 clearly presents a gap between the projection and the wall opposing the gap.

Measuring the distance between the upper and lower inner walls presents one value. Measuring the distance between the top of the projection and the opposing inner wall presents a different value that is approximately 25% of the first value. It is reasonable to believe that the figure expressly or inherently describes the dimensions claimed. In regard to the projections having a flat top, several of the cited references, including **Seckel**, **Mauch**, and **Larkin** teach that this design is old and well known in the art. It would be an obvious modification to provide **Kwok** projections with a flat top, as taught by **Seckel**. Likewise the references to **Duncan**, as well as **Lefrancois** and **Schroeder**, teach that it is old to provide projections that face one another. It too would have been obvious to modify the projections extending from different walls to project toward each other, as it is known in the art to provide opposite facing projections.

***Conclusion***

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Patrick F. Brinson** whose telephone number is (571) 272-4897. The examiner can normally be reached on M-F 7:30-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Michael Y. Mar** can be reached on (571) 272-4906. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Patrick F. Brinson  
Primary Examiner  
Art Unit 3754

P. F. Brinson  
June 29, 2005

